

REMARKS

By virtue of this Amendment, claims 4, 11, 15 and 16 have been amended. Claims 20 and 21 have been newly added. No claims have been deleted.

Following the entry of the amendment, claims 4-6 and 11-21 are presented for further examination. No new matter is added herein.

35 USC §103

1. O'Gara et al. in view of Hsu et al.

Claims 4-6 stand rejected under 35 USC 103(a) as allegedly being obvious over O'Gara et al., *Applied & Environmental Microbiology*, **66(5)**, pp. 2269-2273 (2000), in view of Hsu et al., EP 0945066.

To expedite the prosecution of the invention, applicants hereby amend claim 4 to incorporate the feature that in the composition, DAS3 is present in a larger amount than DAS2. Support for the amendment may be found in examples 1-5 of the instant application.

Example 3 of the instant application demonstrates that DAS3 is more efficient in terms of pesticide efficacy compared to DAS2. Accordingly, it is beneficial for a composition to contain more DAS3 than DAS2. It is Applicants' position that neither O'Gara et al. nor Hsu et al., either alone or in combination, disclose or suggest any composition that contains more DAS3 than DAS2.

Specifically, O'Gara et al. discloses at table 1 a garlic oil containing 10.6% of DAS1 at 106 mg/ml, 53% of DAS2 at 530

mg/ml, 11.5% of DAS3 at 115 mg/ml, and 4.3% of DAS4 at 43 mg/ml. In this composition, the concentration of DAS3 is around 20 times lower than that of DAS2. Indeed, nowhere else does O'Gara et al. disclose any composition containing, among other things, DAS2 and DAS3, wherein the DAS3 is present in a larger amount than DAS2. Accordingly, O'Gara et al. does not disclose or suggest the composition as recited in instant claims 4-6, which requires that DAS3 is in a larger amount than DAS2.

Hsu et al. discloses a composition of a pesticide comprising garlic oil or garlic extract; and a second oil selected from the group consisting of oils, mineral oils, fish oils and mixtures thereof.

Hsu et al. is relied upon for the teaching of adjuvants. The reference does not even specify that DAS, DAS2, DAS3 and DAS4 compounds are present in the pesticide composition, let alone disclosing or suggesting the feature that DAS3 is present in a larger amount in the composition than DAS2.

Since neither O'Gara et al. nor Hsu et al. disclose or suggest any composition containing, *inter alia*, DAS2 and DAS3, wherein DAS3 is present in a larger amount than DAS2, the combination of the references does not disclose or suggest such a composition, much less the composition recited in instant claims 4-6. Therefore, withdrawal of the rejection is respectfully requested.

2. O'Gara et al. in view of Hsu et al. and Lawson et al., Yeh et al., Block et al., and Yu et al.

Claims 11-19 stand rejected under 35 USC 103(a) as allegedly being obvious over O'Gara et al. in view of Hsu et

al., as applied to claims 4-6, and further in view of Lawson et al., *J. Natural Products*, **54(2)**, pp. 436-444, (1991), Yeh et al., *The Journal of Nutrition*, **131(3S)**, pp. S989-S993, (2001), Block et al., *Pure & Applied Chem.*, **65(4)**, pp. 625-632, (1993), and Yu et al., *J. Agric. Food Chem.*, **37**, pp. 725-730, (1989).

Claims 11 and 12 are independent claims. Both of them have the limitation that the composition contains gamma-glutamyl-S-allylcysteine (Gluacs). Claims 13-19 depend either directly or indirectly from claim 12.

The Office Action notes at page 9, lines 3-5, that O'Gara et al. and Hsu et al. do not explicitly teach that garlic extract contains gamma-glytanyl-S-allylcysteine (gluacs), and other compounds recited in the claims such as allyl propyl polysulfide, methyl propyl polysulfides, dipropyl polysulfides, or dimethyl polysulfinatate.

Nonetheless, the Office Action asserts that Lawson et al. teaches that gamma-glytanyl-s-allylcysteine is present in garlic extracts, and Yeh et al., Block et al. and Yu et al. teaches that other components are either present in the extract of garlic or are naturally found in garlic. Accordingly, the Office Action concludes that the combination of O'Gara et al., Lawson et al., Yeh et al., Block et al. and Yu et al. suggests the subject matter recited in claims 11-19.

Applicants respectfully submit that the above analysis is flawed because it is based on an incorrect assumption that once a compound is found in a garlic extract prepared by one process, the same compound must be inherently present in another garlic extract prepared by a totally different process.

As it is known to a person skilled in the art, the process to prepare garlic extract has a direct role on the composition of the extract. The reason is that compounds, such as gluacs, which are present in the fresh garlic, may decompose under "traumatizing" conditions.

Lawson et al. discloses that gluacs are the precursors present "in fresh-picked garlic" (p. 439). This article shows that gluacs are transformed to give propenyl, alliin and allicin, and that concentration of gluacs (fig. 4) decreases during the storage of garlic, confirming that temperature and endogenous enzymes have an effect on gluacs.

In contrast, O'Gara et al. discloses a garlic oil prepared by a very harsh process, which involves heating crushed garlic cloves to 100 °C followed by collecting the vapor as a distillate. Accordingly, it is applicants' position that it is not proper to conclude that the garlic extract disclosed in O'Gara et al., which is prepared by distillation process, inherently contains gluacs based on the disclosure of Lawson et al., and that the compound is present in fresh garlic.

To obtain a composition that contains DASn and gluacs at the same time, the specific process of the invention presents several particulars, for example, concentration under vacuum or enzymatic inactivation by acid.

None of O'Gara et al. Hsu et al. or Lawson et al. or the other relied upon references discloses such a process or the extract obtained therefrom. Accordingly, the cited references, either alone or in combination, do not disclose or suggest the subject matter recited in claims 11 and 12 and the claims

depending therefrom. Therefore, withdrawal of the rejection is respectfully requested.

Claim Rejections - 35 USC § 112

Claims 15 and 16 are rejected under 35 USC § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office Action asserts that the meaning of the term "predominant" is indefinite.

By this amendment, claims 15 and 16 have been amended to change the term "predominant" to "more than 50%" thus obviating the rejection.

For the reasons discussed above, it is respectfully submitted that the instantly pending claims are in condition for allowance.

If the Examiner believes a telephone conference would aid in the continued prosecution of this application, the Examiner is invited and encouraged to contact Applicants' representative at the telephone number listed below.

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Respectfully submitted,

DAVID GAUDOUT ET AL.

By Todd E. Garabedian
Todd E. Garabedian, Ph.D.
Registration No. 39,197
Attorney for Applicants

WIGGIN and DANA LLP
One Century Tower
New Haven, CT 06508
Telephone: (203) 498-4400
Facsimile: (203) 782-2889

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